PROJECT DESCRIPTION

<u>GENERAL</u>

THIS PROJECT INVOLVES THE INSTALLATION OF APS AND LED COUNTDOWN PEDESTRIAN SIGNALS ON THE NORTH LEG OF THE INTERSECTION OF US 13 BUSINESS (N. SALISBURY BOULEVARD) AND NAYLOR STREET IN WICOMICO COUNTY. US 13 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE, FULL TRAFFIC-ACTUATED MODE. THE EXISTING PRE-EMPTION PHASES WILL REMAIN. A SIDE STREET ALTERNATE PEDESTRIAN PHASE IS PROPOSED.

APS WILL FUNCTION AS FOLLOWS: FOR NORTH SALISBURY BOULEVARD

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS NORTH SALISBURY AT NAYLOR".
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER SHALL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL A 2 WIRE CENTRAL CONTROL UNIT WITHIN THE CABINET.

THE CONTACT PERSONS FOR DISTRICT #1 ARE AS FOLLOWS:

Mr. Gene Cofiell Assistant District Engineer - Traffic Phone: 410-677-4040

Mr. Bruce Poole District Utility Engineer Phone: 410-677-4082

Mr. James Wright Assistant District Engineer - Maintenance Phone: 410-677-4010

Mr. Richard L. Daff Sr. Chief, Traffic Operations Division Phone: 410-787-7630

Mr. Edward Rodenhizer Chief, SHA Signal Shop Phone: 410-787-7650

The Power Company Representative is:
Delmarva Power
2530 N Salisbury Blvd.
Salisbury, Maryland
1-800-375-7117

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO. <u>QUANTITY</u> **DESCRIPTION**

[UPDATED] SHEET ALUMINUM MAST 58 SF ARM/POLE MOUNTED SIGN:

> 2 EA - RIO-3(I) (9 IN. x 15 IN.) "PUSH BUTTON TO CROSS N. SALISBURY BLVD*

I EA - ASSOCIATED SHIELD ASSEMBLY (24"x51"), "SOUTH, US 13 BUSINESS, RIGHT ARROW" I EA - ASSOCIATED SHIELD ASSEMBLY (36"×75"), "NORTH, US 13 BUSINESS, LEFT ARROW"

I EA - ASSOCIATED SHIELD ASSEMBLY (24"×51"), "NORTH, US 13 BUSINESS, RIGHT ARROW" I EA - ASSOCIATED SHIELD ASSEMBLY (36*x75*), "SOUTH, US 13 BUSINESS, LEFT ARROW"

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

DESCRIPTION ITEM NO.

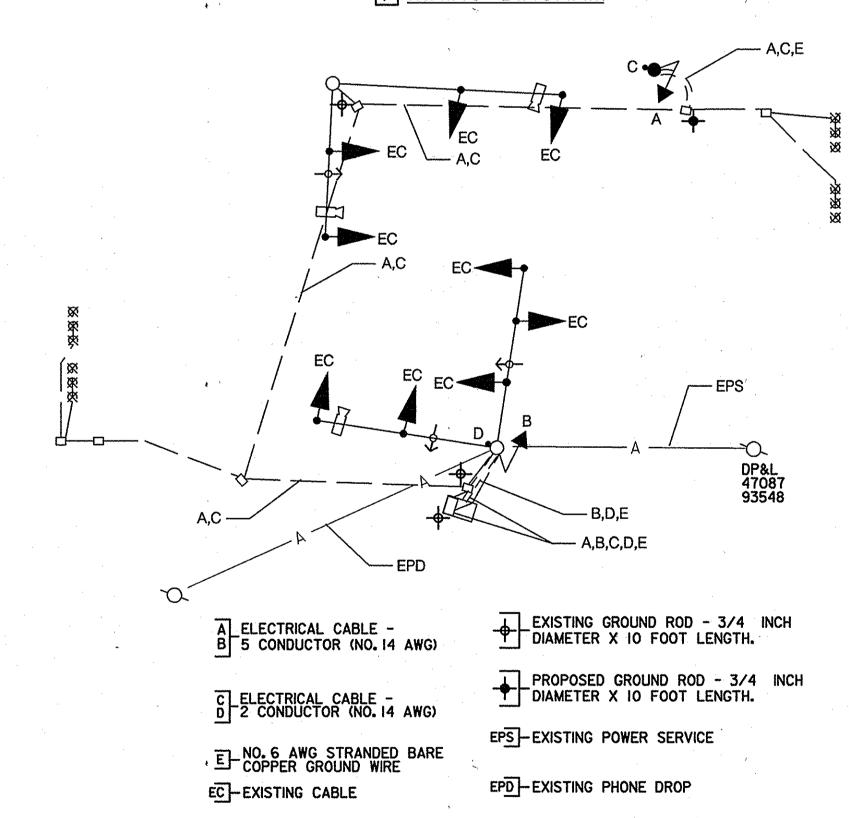
NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

| | | • | |
|---------------------------------------|----------|----------|---|
| | ITEM NO. | QUANTITY | DESCRIPTION |
| | 1001 | I EA | MAINTENANCE OF TRAFFIC |
| | 2002 | I CY | TEST PIT EXCAVATION |
| • | 5003 | 165 LF | 12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES |
| | 5004 | 50 LF | 24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES |
| | 5006 | 215 LF | REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH |
| | 6001 | 75 LF | STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN AND 8 INCH DEPTH |
| | 6002 | 200 SF | 5 INCH CONCRETE SIDEWALK |
| · · · · · · · · · · · · · · · · · · · | 8002 | I EA | 2 WIRE CENTRAL CONTROL UNIT |
| | 8007 | 2 EA | AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS |
| | 8008 | I EA | BREAKAWAY PEDESTAL POLE (ANY SIZE) |
| | 8009 | 2 EA | CONDUIT BEND IN EXISTING BASE |
| | 8011 | 2 EA | LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD |
| | 8020 | 40 LF | UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED |
| | 8021 | 20 LF | DETECTABLE WARNING SURFACES |
| | 8027 | 40 LF | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE |
| | 8032 | 58 SF | INSTALL OVERHEAD SIGN |
| | 8037 | 325 LF | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) |
| | 8039 | 325 LF | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) |
| | 1008 | 28 EA | 12 INCH LED SIGNAL HEAD SECTION |
| | 8004 | 3 EA | 8 INCH LED SIGNAL HEAD SECTION |
| | | | |

MIRING DIAGRAM



PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|-----------------------------------|--------|----------|----------|-------------------------------------|---------------------|----------|-----------|-------|-------------|-------|-------|--|
| | (E)(G) | (R) Y) G | * | (R) (**) (**) (**) (**) | @\\ @\\\ @\\\ | (E) S(G) | (R) S) G) | @<>@ | @\ <u>\</u> | | | |
| PHASE 2 AND 5 | R | R | •G-G | 4G-G | G | R | R | R | R | DW | DW | 1 |
| 5 CHANGE | R | R | •Y-G | •Y-G | G | R | R | R | R | DW | DW | ŀ ↓ Ť |
| PHASE 2 AND 6 | G | G | G | G | G | R | R | R | R | DW | DW | 1 |
| 2 AND 6 CHANGE | Υ | Υ | Υ | Υ | Υ | R | R | R | R | DW | DW | |
| PHASE 4 AND 8 | R | R | R | R | R | G | G | G | G | DW | DW | Δ |
| PHASE 4 AND 8 CHANGE | R | R | R | R | R | Υ | Υ | Υ | Υ | DW | DW | ↑ |
| PHASE 4 AND 8 ALT. | R | R | R | R | R | G | G | G | G | W | w | |
| PHASE 4 AND 8 ALT. PED. CLEARANCE | R | R | R | R | R | G | G | G | G | FL/DW | FL/DW | |
| PHASE 4 AND 8 ALT. CHANGE | R | R | R | R | R | Υ | Υ | Υ | Y | DW | DW | - V 4 |
| PRE-EMPTION 02 | R | R | +G−G | •G-G | G | R | R | R | R | DW | DW | A |
| PRE-EMPTION 02 CHANGE | R | R | Y-Y | •Y-Y | Y | R | R | R | R | DW | DW | H √. |
| PRE-EMPTION 06 | G | G | R | R | R | R | R | R | R | DW | DW | 7 |
| PRE-EMPTION 06 CHANGE | Υ | Υ | R | Ř | R | R | R | R | R | DW | DW | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| PRE-EMPTION 08 | R | R | R | R | R | R | R | G | G | DW | DW | _Δ_Δ_ |
| PRE-EMPTION 08 CHANGE | R | R | . R | R | R | R | R | Υ | Υ | DW | DW | 4 |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/ R | FL/ R | FL/R | DARK | DARK | → ‡ φ |

TEDD RED LINE #1 - UPGRADE TO LED SIGNALS 3/2008



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION

US 13 BUSINESS (N. SALISBURY BOULEVARD) AT NAYLOR STREET

GENERAL INFORMATION

| SCALE NONE | ADVERTISED DATE_ | <u>1/2008</u> CC | ONTRACT NO. XX340518 |
|-------------|------------------|------------------|----------------------|
| DESIGNED BY | VGN | COUNTY_ | WICOMICO |
| DRAWN BY | AMT | LOGMILE _ | 22B01306.25 |
| CHECKED BY | BAB | TIMS NO. | 1457 |
| F.A.P. NO | SEE TITLE SHEET | TOD NO. | |

STV Incorporated

Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

PLOTTED: Thursday, March 27, 2008 AT 11:42 AM FILE: J:\DATA\457\Redline #1\pSG-N000_us13_naylor.dgn